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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/539,313	03/30/2000	Chung-Ho Huang	LAM1P136/P0602	7930

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BEYER WEAVER & THOMAS LLP
P.O. BOX 70250
OAKLAND, CA 94612-0250

EXAMINER	
ENGLAND, DAVID E	

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/539,313	HUANG ET AL.	
	Examiner	Art Unit	
	David E. England	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DC

DETAILED ACTION

1. Claims 1 – 9 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kail (6225901) in view of Nakamura et al. (6233492) (hereinafter Nakamura) in further view of Steen, III et al. (6510350) (hereinafter Steen).

4. As per claim 1, Kail teaches a computer implemented method for communicating between a computing system of a process module, and a first sensor, comprising the steps of:

5. initializing the computing system of the process module, (e.g. col. 6, line 49 – col. 7, line 20);

6. transmitting a connect message from the first sensor to the computing system of the process module, (e.g. col. 6, line 49 – col. 7, line 20);

7. transmitting a command to get reportable specification from the computing system of the process module to the first sensor, (e.g. col. 6, line 49 – col. 7, line 59 & col. 7, line 60 – col. 8, line 57); and

8. transmitting a reportable specification message from the first sensor to the computing system of the process module, (e.g. col. 7, line 21 – col. 8, line 28 & col. 7, line 60 – col. 8, line 57). Kail does not teach the process module having a process chamber, initializing the first sensor, which is able to measure a first parameter in the process chamber; and

9. a reportable specification with informs the process module computing system of the type of data that will be provided from the first sensor.

10. Nakamura teaches the process module having a process chamber, initializing the first sensor, which is able to measure a first parameter in the process chamber, (e.g. col. 3, line 35 – col. 4, line 67). It would be obvious to one skilled in the art at the time the invention was made to combine Nakamura with Kail because it would be more efficient for the computing system to utilize a network type connection so the user can operate the sensor and process chamber form different locations in a building.

11. Steen teaches a reportable specification with informs the process module computing system of the type of data that will be provided from the first sensor, (e.g. col. 3, lines 33 – 56, *"sends request to update a field parameter or request for up-to-date sensor data..."*). It would be obvious to one skilled in the art at the time the invention was made to combine Steen with the combine system of Kail and Nakamura because if a sensor can sense multiple types of information, but the system only needs one type from said sensor, the sensor be designated as a specific type of sensor, (example: only sense temperature). This could make for a faster system since it is not required for the sensor to constantly be reformatted for each different element it can sense. Furthermore, updating information in a database enables the user to view sensor information either on-demand, real time or near real time.

12. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kail, Nakamura, Steen, as applied to claim 1 above, and in further view of Kosugi et al. (6204768) (hereinafter Kosugi).

13. As per claim 2, Kail and Nakamura do not specifically teach spawning within the computing system of the process module a connection monitor task;

14. spawning from the connection monitor task within the computing system of the process module a first sensor messaging task;

15. transmitting an acknowledgement of the command to get reportable specification from the first sensor to the computing system of the process module; and

16. transmitting an acknowledgement of the reportable specification message from the computing system of the process module to the first sensor. Steen teaches spawning within the computing system of the process module a connection monitor task, (e.g. col. 11, line 4 – col. 12, line 21);

17. spawning from the connection monitor task within the computing system of the process module a first sensor messaging task, (e.g. col. 11, line 60 – col. 12, line 56);

18. transmitting an acknowledgement of the command to get reportable specification from the first sensor to the computing system of the process module, (e.g. col. 9, line 63 – col. 10, line 29). It would be obvious to one skilled in the art at the time the invention was made to combine Steen with the combine system of Kail and Nakamura because

19. Steen does not specifically teach transmitting an acknowledgement of the reportable specification message from the computing system of the process module to the first sensor. Kosugi teaches transmitting an acknowledgement of the reportable specification message from the computing system of the process module to the first sensor, (e.g. col. 8, lines 28 – 48 & col. 9, lines 18 – 29). It would be obvious to one skilled in the art at the time the invention was made to combine Kosugi with the combine system of Kail, Nakamura and Steen because it would be more efficient for a system to utilize the properties of an acknowledgement signal so in case of a bad transmission the sensor would know that the computing system did or did not get the signal and to retransmit the signal.

20. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kail, Nakamura, Steen, Kosugi as applied to claims 1 & 2 above, and in further view of Sandelman et al. (6535123) (hereinafter Sandelman) and Chari et al. (6425006) (hereinafter Chari).

21. As per claim 3, Kail, Nakamura and Steen do not specifically teach transmitting command to get an alarm table command from the first sensor to the computing system of the process module;

22. transmitting an acknowledgement of the command to get the alarm table from the computing system of the process module to the first sensor;

23. transmitting an alarm table from the computing system of the process module to the first sensor, wherein the alarm table designates the number of alarms, alarm identification numbers, and descriptions of the alarms; and

24. transmitting an acknowledgement of the alarm table from the first sensor to the computing system of the process module.

25. Sandelman teaches the use of routing tables and router that are connected to sensor and other networking devices that could be interpreted as transmitting command to get an alarm table command from the first sensor to the computing system of the process module, (e.g. col. 3, lines 20 – 65 & col. 8, line 53 – col. 9, line 15);

26. transmitting an alarm table from the computing system of the process module to the first sensor, (e.g. col. 3, lines 20 – 65 & col. 8, line 53 – col. 9, line 15). It would be obvious to one skilled in the art at the time the invention was made to combine Sandelman with the combine system of Kail, Nakamura and Steen because it is common knowledge that when a new router is installed and turned on, it requests from other networking devices a routing table so to update its table and route information so to act as an interface to at least one of the sensors that would be connected to it.

27. Sandelman does not specifically teach transmitting an acknowledgement of the command to get the alarm table from the computing system of the process module to the first sensor;

28. transmitting an acknowledgement of the alarm table from the first sensor to the computing system of the process module. Kosugi teaches transmitting an acknowledgement of the command to get the alarm table from the computing system of the process module to the first sensor, (e.g. col. 8, lines 28 – 48), and Steen teaches transmitting an acknowledgement of the alarm table from the first sensor to the computing system of the process module, (e.g. col. 9, line 63 – col. 10, line 29). It would be obvious to one skilled in the art at the time the invention was made to combine Kosugi and Steen with the combine system of Kail, Nakamura, Steen and

Sandelman because if the computing system and the first sensor could not acknowledge each others transmissions the system could accumulate transmission errors and improper updating of the measurements that the sensor detects. Chari teaches wherein the alarm table designates the number of alarms, alarm identification numbers, and descriptions of the alarms, (e.g. col. 4, lines 23 – 38). It would be obvious to one skilled in the art at the time the invention was made to combine Chari with the combine system of Kail, Nakamura, Steen, Kosugi and Sandelman because it allows the user to view the alert log file and keep track of each type of alert and when they occurred.

29. Claims 4 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kail, Nakamura, Steen, Sandelman, Kosugi and Chari as applied to claims 1 – 3 above, and in further view of Halpern (5301122).

30. As per claim 4, Kail, Nakamura, Steen, Sandelman and Chari do not specifically teach transmitting command to get time and initialization data from the first sensor to the computing system of the process module;

31. transmitting time and initialization data from the computing system of the process module to the first sensor. Halpern teaches transmitting command to get time and initialization data from the first sensor to the computing system of the process module, (e.g. col. col. 11, lines 13 – 49);

32. transmitting time and initialization data from the computing system of the process module to the first sensor, (e.g. col. col. 11, lines 13 – 49). It would be obvious to one skilled in

the art at the time the invention was made to combine Halpern with the combine system of Kail, Nakamura, Steen, Sandelman and Chari because of similar reasons stated above and it would be more efficient in the updating process to have time and initialization data so when the computing system does attempt to update its information the computing system can compare the two different times and initialization data and to determine which ones are the latest versions of information to save.

33. Halpern does not specifically teach transmitting an acknowledgement of the command to get time and initialization data from the computing system of the process module to the first sensor;

34. transmitting an acknowledgement of the time and initialization data from the first sensor to the computing system of the process module. Kosugi teaches transmitting an acknowledgement of the command to get time and initialization data from the computing system of the process module to the first sensor, (e.g. col. 8, lines 28 – 48), and Steen teaches transmitting an acknowledgement of the time and initialization data from the first sensor to the computing system of the process module, (e.g. col. 9, line 63 – col. 10, line 29). It would be obvious to one skilled in the art at the time the invention was made to combine Kosugi and Steen with the combine system of Kail, Nakamura, Steen, Sandelman, Halpern and Chari because of similar reasons as stated above.

35. As per claim 5, Kail, Kosugi, Steen, Sandelman, Halpern and Chari do not specifically teach transmitting a process related command related to the execution of an action in the process chamber from the computing system of the process module to the first sensor;

36. executing the action in the process chamber, wherein said action relates to the processing of semiconductor related devices; and

37. transmitting an acknowledgement of the process related command from the first sensor to the computing system of the process module. Nakamura teaches transmitting a process related command related to the execution of an action in the process chamber from the computing system of the process module to the first sensor, (e.g. col. 3, line 35 – col. 4, line 67);

38. executing the action in the process chamber, wherein said action relates to the processing of semiconductor related devices, (e.g. col. 3, line 35 – col. 4, line 67). It would be obvious to one skilled in the art at the time the invention was made to combine Nakamura with the combine system of Kail, Kosugi, Sandelman, Halpern and Chari because it would be more efficient for a system to remotely have the ability to execute a process to different semiconductor related devices as opposed to having one computer for every one process chamber.

39. Nakamura does not specifically teach transmitting an acknowledgement of the process related command from the first sensor to the computing system of the process module. Steen teaches transmitting an acknowledgement of the process related command from the first sensor to the computing system of the process module, (e.g. col. 9, line 63 – col. 10, line 29). It would be obvious to one skilled in the art at the time the invention was made to combine Steen with the combine system of Kail, Nakamura, Kosugi, Sandelman, Halpern and Chari because of similar reasons as stated above.

40. Claims 6 – 9 are rejected for similar reasons as stated above. Furthermore, in reference to a second and third sensor, Kosugi teaches a second and a third sensor, (e.g. col. 6, lines 3 – 33 &

Figure 1). It would be obvious to one skilled in the art at the time the invention was made to combine Kosugi with the combine system of Kail, Nakamura, Steen, Sandelman and Halpern because having more then one or two sensors would make a system gather information from different locations at a faster pace then having one sensor having to electronically relocate to a different section of the system to gather information about the system, therefore making the system more efficient.

Response to Arguments

41. Applicant's arguments with respect to claims 1, 2 and 4 – 9 have been considered but are moot in view of the new ground(s) of rejection.

42. Applicant's arguments filed 11/24/2004, regarding claim 3 has been fully considered but they are not persuasive.

43. In the remarks, Applicant argues in substance that Chari does not teach that the log provides both the number of alarms and alarm identification numbers, but only the number of an alarm (alarm identification number).

44. As to part 1, Examiner would like to draw the Applicant's attention to the section that was cited by the Examiner above along with Figure 4A. There on can see that there is a plurality of alerts that one can view, therefore, Chari teaches the log providing a number of alarms, which reads on the claim language.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. England whose telephone number is 571-272-3912. The examiner can normally be reached on Mon-Thur, 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David E. England
Examiner
Art Unit 2143

De

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100